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## 3.3 WILDLIFE HABITAT

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### 3.3.0 Introduction

*Wildlife* is defined as all forms of life that are wild (Hunter 1990) and here includes all terrestrial and aquatic animals, plants, fungi, and other organisms that are part of the ecosystems of the planning area.

*Wildlife habitat* is defined as a place where the physical and biological elements of ecosystems provide a suitable environment for the food, cover, and space resources needed for plant and animal livelihood (FSM 2605).

#### Issue Statement

There are differing opinions about how the National Forests should be managed for the full array of rare to common wildlife species and habitats and what species and habitats should be emphasized. Forest Plan revision establishes direction for the types, amounts, distribution, spatial pattern, and function of wildlife habitats. This includes direction for the protection, enhancement and restoration rare species and their habitats.

#### Organization of Chapter 3.3

Because of the large number of umbrella-type indicators (25) that are used for wildlife, this overview section is provided to briefly explain the indicator selection process. Descriptions of individual indicators, along with rationale for their selection, are found under each specific section for indicators, not in this overview.

Effects to wildlife are assessed through evaluation of projected environmental conditions that are related to the following groups of indicators:

- **Section 3.3.1:** Forest Type and Age Management Indicator Habitats (Indicators 1-10)
- **Section 3.3.2:** Spatial patterns Management Indicator Habitats (Indicators 11-13):
- **Section 3.3.3:** Aquatic Management Indicator Habitats (Indicator 14)
- **Section 3.3.4:** Threatened and Endangered Species (Indicators 15-17)
- **Section 3.3.5:** Regional Forester Sensitive Species (Indicator 18)
- **Section 3.3.6:** Other Species of Management Concern (Indicators 19-23)
- **Section 3.3.7:** Non-native invasive species (Indicator 24)
- **Section 3.3.8:** Wildlife Recreation Impacts (Indicator 25)

#### How Management Indicators Species are Addressed

The wildlife section of Appendix B summarizes the process used to develop indicators for assessing impacts of alternatives on wildlife. In brief: 36 CFR 219.19 (a)(1) requires the Forest Service to select “management indicator species” (MIS) in order to estimate the effects of each alternative on wildlife.

FSM 2621 Management Indicators (WO Amendment 2600-1) expands the use of MIS to use of “management indicators” that can include habitats. Through a selection process guided by the regulations, Forest Service manual, and recent case

law on MIS, indicators were identified to fulfill the 36 CFR 219.19 requirements. Indicators 1-14 were selected as “management indicator habitats” and Indicators 16 (gray wolf), 17 (bald eagle), 19 (northern goshawk), and 20 (white pine) were selected as “management indicator species”.

Management indicator species are monitored during forest plan implementation in order to assess the effects of management activities on their populations and the populations of other species with similar habitat needs that they may represent.

Because of scientific limitations of using individual species to indicate effects on many other species, a limited number (four) of management indicator species were selected. Management indicator habitats were favored because it was determined that they better reflect the broad spectrum of major wildlife management issues and challenges than individual species. Management indicator habitats represent the major biological communities on the National Forests that are affected by management. In other words, they provide a “coarse filter” that represents the array of native ecosystems of the National Forests - with emphasis on those that would be most affected by management and whose conditions would vary by alternative. In summary, management indicator habitats were developed to generally encompass coarse filter habitats associated with as many species as possible to provide a practical and efficient approach to addressing the thousands of species that are found on the National Forests.

Some species may fall through this coarse filter because of their specialized habitat requirements, because of their high public concern, or because of concern for their continued viability on the planning area. Therefore, we selected additional species as “fine filter” indicators that, although not designated as “management indicator species” per 36 CFR 219.19(a)(1), allow us to address important wildlife impacts or issues not adequately addressed by “management indicator species and habitats”. Indicators 15 (lynx), 18 (107 sensitive species) and 21-23 (woodcock, deer, and ruffed grouse) were selected because they allow evaluation of individual species identified during scoping as species of high public concern because of their social, economic, ecological importance. They include commonly

hunted species, watchable wildlife species, species associated with special habitats, and species of viability concern in the planning area (threatened, endangered, and sensitive species). The individual sections of Chapter 3 of the EIS that analyze these indicators provide more information on rationale for selection.

### **Relationship between wildlife indicators and other resource indicators**

Impacts to wildlife are also assessed employing indicators from other resource areas, especially vegetation and watersheds, but also those areas that address human developments such as roads, trails, and recreational areas. This is because environmental conditions that influence wildlife are largely a function of management of vegetation, watersheds and the impacts of human uses of National Forest lands. Where applicable in the different sections of this chapter, the use of other resource indicators is highlighted and explained.

In summary, the suite of indicators for wildlife habitat will allow:

- An qualitative estimate of the effects of each alternative on wildlife populations through quantitative and qualitative assessment of indicators of habitat quantity, quality, and distribution.
- An evaluation of the degree to which the alternatives vary as they address 36 CFR 219.19 requirements to manage to maintain viable populations. Viable populations are defined as those which have the estimated numbers and distribution of reproductive individuals to insure their continued existence is well distributed on the National Forests.

### **Resource Protection Methods Applicable to All Indicators**

### **Laws, Regulations, and Policies**

The National Forest Management Act of 1976, other laws, and federal regulations require the Forest Service to maintain or improve biological diversity at

the genetic, species, and ecosystem levels and to maintain viable populations of existing native and desired non-native species well-distributed within their range on the planning area. Management must avoid actions “which may cause a species to become threatened or endangered” (Departmental Regulation 9500-4).

These legal requirements are reinforced by Forest Service policy. Policy dictates identification of regional sensitive species (FSM 2670.15) and management to ensure that species do not trend toward federal listing because of Forest Service actions. Management should maintain viable populations “of all existing and desired non-native wildlife, fish, and plant species distributed throughout their geographic range on National Forest system lands” (FSM 2670.22).

The Endangered Species Act of 1973 requires the Forest Service to carry out programs for the conservation of threatened and endangered species and ensure that federal actions do not jeopardize the continued existence of listed species or destroy or adversely modify critical habitat.

The Multiple Use Sustained Yield Act of 1960 requires considering wildlife resources equally with other renewable resources in managing forests.

The Migratory Bird Treaty Act of 1918 addresses concerns for migratory birds. In a subsequent 2001 Memorandum of Understanding (MOU) between the US Fish and Wildlife Service and the Forest Service (MOU: 01-MU-11130117-028) the Forest Service agreed to 1) incorporate migratory bird habitat and population management objectives and recommendations into agency planning processes, in cooperation with other governments, state and federal agencies, and non-federal partners and 2) strive to protect, restore, enhance, and manage habitat of migratory birds, and prevent the further loss or degradation of remaining habitats on National Forest System lands.

Laws, regulations and policy most applicable to watershed health and aquatic species are described in Chapter 3.6.1b Resource Protection Methods.

Other federal laws, such as the Sikes Act of 1960, and Forest Service policy recognize that State agencies

and Indian tribes are responsible for the management of animals and assign National Forests a role in cooperatively managing wildlife habitat.

### Forest Plan Direction

All alternatives promote management to meet the requirements of laws, regulations, and policy described above.

Forest Plans promote management to maintain viable and well-distributed populations and habitats by ensuring that environmental conditions on National Forests are present in quality, quantity, distributions, and spatial patterns that are adequately representative of - not necessarily within - the range of natural variability. Forest Plans recognize that species abundance and distribution constantly change. Forest Plans also recognize that for some rare, disjunct, or localized species, or species that depend on a very narrow habitat or niche, viable and well-distributed populations and habitats cannot always exist on the National Forests.

Other key direction of alternatives promotes management actions that:

- Contribute to the conservation and maintenance of threatened, endangered, and sensitive species and the habitats upon which they depend.
- Support diverse species populations for all social, economic, and ecological purposes and uses.
- Promote an adequate and representative array of habitat conditions that supports sustainable and acceptable levels of human uses.
- Avoid actions that may cause a species to become threatened or endangered.

Desired conditions and habitat goals for most species are addressed through a coarse filter approach. A coarse filter approach is one that maintains an array of environmental conditions that are representative of native ecosystems of the area in order to provide habitat for as many species as possible. Many important desired conditions for species are established through desired conditions, goals, and objectives for vegetation management (including timber harvest, prescribed fire, and vegetation

succession), watershed health, ecosystem processes, recreation management, land adjustment programs, and transportation systems management.

Vegetation management is a key determinant for both aquatic and terrestrial species. Each alternative varies in the amounts, quality and distributions of an array of vegetation community types, but all alternatives include these key objectives for diverse vegetation conditions that are adequately representative of the range of natural variability with emphasis on restoring communities and conditions that have been degraded or reduced in size and distribution on the landscape. These include an increased emphasis on managing for:

- Mature, old, and old growth forests while still providing for a full array of forest age classes and successional stages
- Uneven and multi-aged forests with diverse vegetation composition and structure
- Diverse mixes of vegetation at site and landscape levels that are representative of the variability of vegetation communities
- Retention of mature and older live, dying, and dead trees and coarse woody debris (logs, trees, branches) on the forest floor from management treated areas
- Patches of live trees within harvested areas
- Restoration of spatial patterns of vegetation patches that are representative of the range of natural variability that promote: well-distributed habitat; restoration of ecosystem function (processes); connectivity between terrestrial, riparian, and aquatic ecosystems

On the Superior this direction was established considering the role the Boundary Waters Canoe Area Wilderness (BWCAW) plays in providing suitable environmental conditions for many species. The primary management emphasis in the BWCAW is for wilderness values, with minimal human management of the vegetation to shape habitats. Here, natural processes such as vegetation succession, wind, insects and disease, and fire, are key determinants of habitat. The BWCAW Fire Plan (USDA Forest Service 2001d) does, however, establish objectives for treatment of portions of the 1999 Windstorm with management-ignited fires.

While desired conditions for all alternatives have much in common, the vegetation objectives differ widely among the alternatives in the amount, age, quality, and spatial pattern of vegetation communities. This results in varied mixes of habitats and varied roles for the National Forests in providing for species.

Forest Plans also provide management direction specific to individual species when coarse filter management direction described above is not considered adequate to achieve desired conditions.

Additional more specific resource protections are identified, where applicable, for each indicator in the individual sections of this chapter.

## Analysis Area

Unless otherwise noted, for all wildlife indicators the analysis area for considering direct and indirect effects to wildlife includes the lands managed by the Chippewa and Superior National Forests. On the Superior, for most indicators, this includes the BWCAW. Species' ranges were considered and some effects analysis areas were narrowed or expanded within the proclamation boundaries of the National Forests to reflect areas of potential impacts.

Unless otherwise noted in each section, the area covered by the cumulative effects analysis for the Chippewa NF generally is land of all ownerships within the Drift and Lake Plains Section. For the Superior NF it includes land of all ownerships within the Northern Superior Uplands, generally including the BWCAW. Where this differs for some of the indicators, it is documented in each individual section. For example, species' ranges were considered and some cumulative effects areas were either narrowed or expanded to most appropriately address cumulative effects.